

BENCH MARK
 B.M.#3 "cut into storm inlet on Vollmerhausen Road Elev. 310.48

BENCH MARK
 B.M.#1 "cut into face storm inlet on Newberry Drive near corner Elev. 351.95
BENCH MARK
 B.M.#2 "cut into mac. curb in conc. drain on Vollmerhausen Road Elev. 340.36

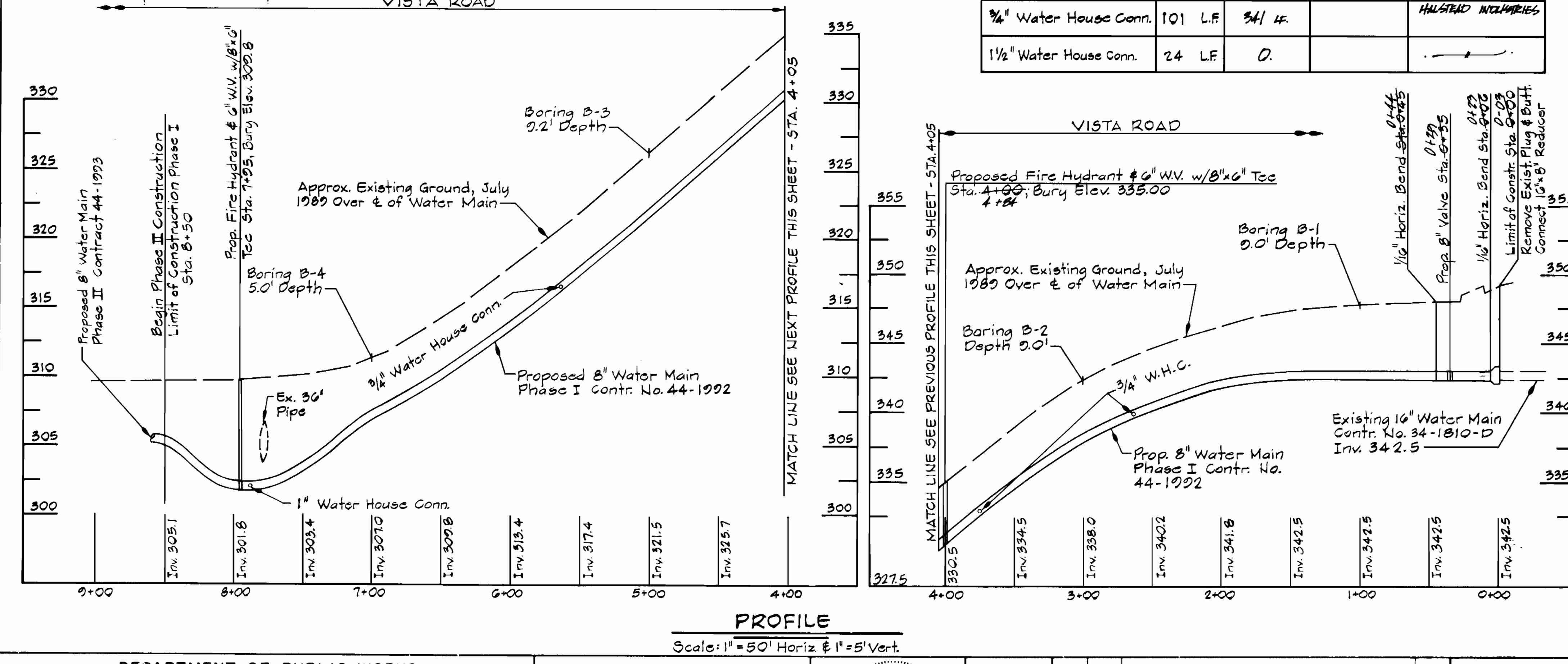
ITEM	QUANTITIES		TYPE MATERIAL	SUPPLIER
	ESTIM.	AS BUILT		
8" Water Main	850 L.F.	853 L.F.		ATLANTIC STATES PIPE
8" Water Valves	1 EA.	1 EA.		MUELLER COMPANY
Std. Fire Hydrant	2 EA.	2 EA.		MUELLER COMPANY
3/4" Water House Conn.	101 L.F.	341 L.F.		HALLSHEAD INDUSTRIES
1 1/2" Water House Conn.	24 L.F.	0		

TYPE OF BUILDING: RESIDENTIAL
 NUMBER OF PARCELS: 5
 WATER HOUSE CONNECTIONS: 5
 DRAINAGE AREA: MIDDLE PATUXENT

VICINITY MAP
 SCALE 1" = 600'

WATER CODE FOR COUNTY USE ONLY
 WATER 10 E22

- GENERAL NOTES**
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS, SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
 - ALL HORIZONTAL CONTROLS BASED ON MARYLAND STATE COORDINATES
 - ALL VERTICAL CONTROLS BASED ON U.S.G.S. DATUM
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS
 - CLEAR ALL UTILITIES BY A MINIMUM OF 6"
 - FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB
 - WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATION OF THE TEST PIT A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE
 - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 BALTO GAS & ELECTRIC CO - CONTRACTOR SERVICE 850-4620
 BALTO GAS & ELECTRIC CO - UNDERGROUND DAMAGE CONTROL 859-9004
 BALTO GAS & ELECTRIC CO - TROUBLE SHOOTING 298-9001
 BUREAU OF UTILITIES, HOWARD COUNTY DEPT. OF PUBLIC WORKS 992-2366
 C & P TELEPHONE COMPANY 1-800-257-7777
 COLONIAL PIPELINE COMPANY 795-1390
 STATE HIGHWAY ADMINISTRATION 531-5533
 MISS UTILITY 1-559-0100
 - TREE AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
 - CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN
 - ALL WATER MAINS TO BE D.I.P CLASS 52 UNLESS OTHERWISE NOTED
 - TOPS OF ALL WATER MAINS TO HAVE A MIN OF 3' COVER UNLESS OTHERWISE NOTED
 - VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES
 - ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS
 - FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEV. SHOWN ON THE DWGS. ALL FIRE HYD SHALL BE STRAPPED AND BUTTRESSED WITH CONC. IN ACCORDANCE WITH STD. DETAILS. SOIL AROUND THE FIRE HYD SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 FROM THE SPECS
 - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM. CALL HOWARD COUNTY BUREAU OF UTILITIES AT 992-2366 COORDINATE THE TIE-IN TO THE EXISTING 8" WATER AT LEAST FIVE WORKING DAYS PRIOR TO SCHEDULING
 - ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS

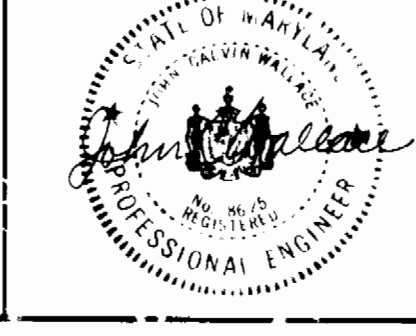


DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

2-13-90
 DATE

2-9-90
 DATE

WALLACE, MONTGOMERY & ASSOCIATES
 1544 YORK ROAD
 LUTHERVILLE, MARYLAND 21093
 (301) 494-9093



DES: J.C.W.	
DRN: SWS	
CHK: J.C.W.	
DATE: 12-8-89	
BY: NO.	REVISION

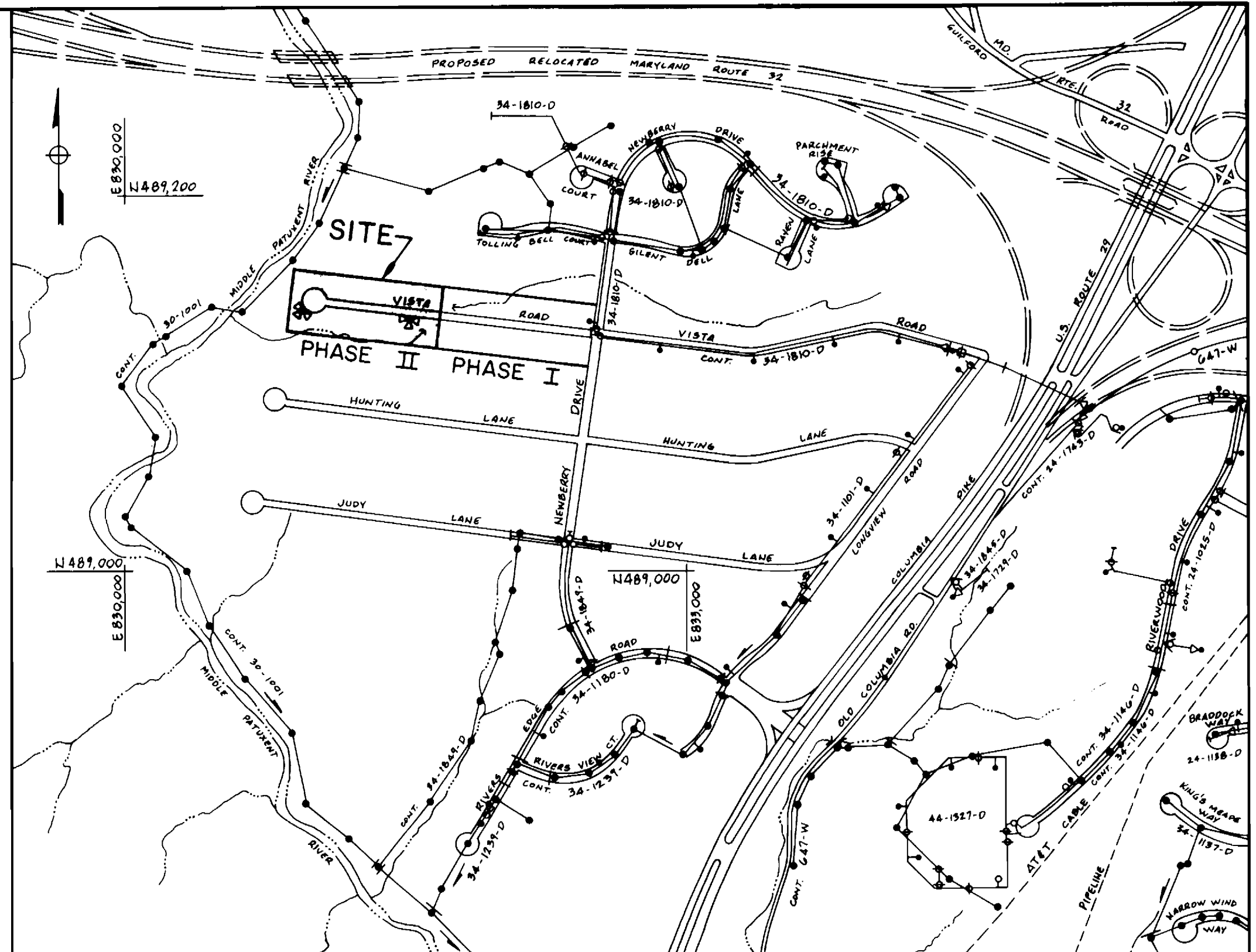
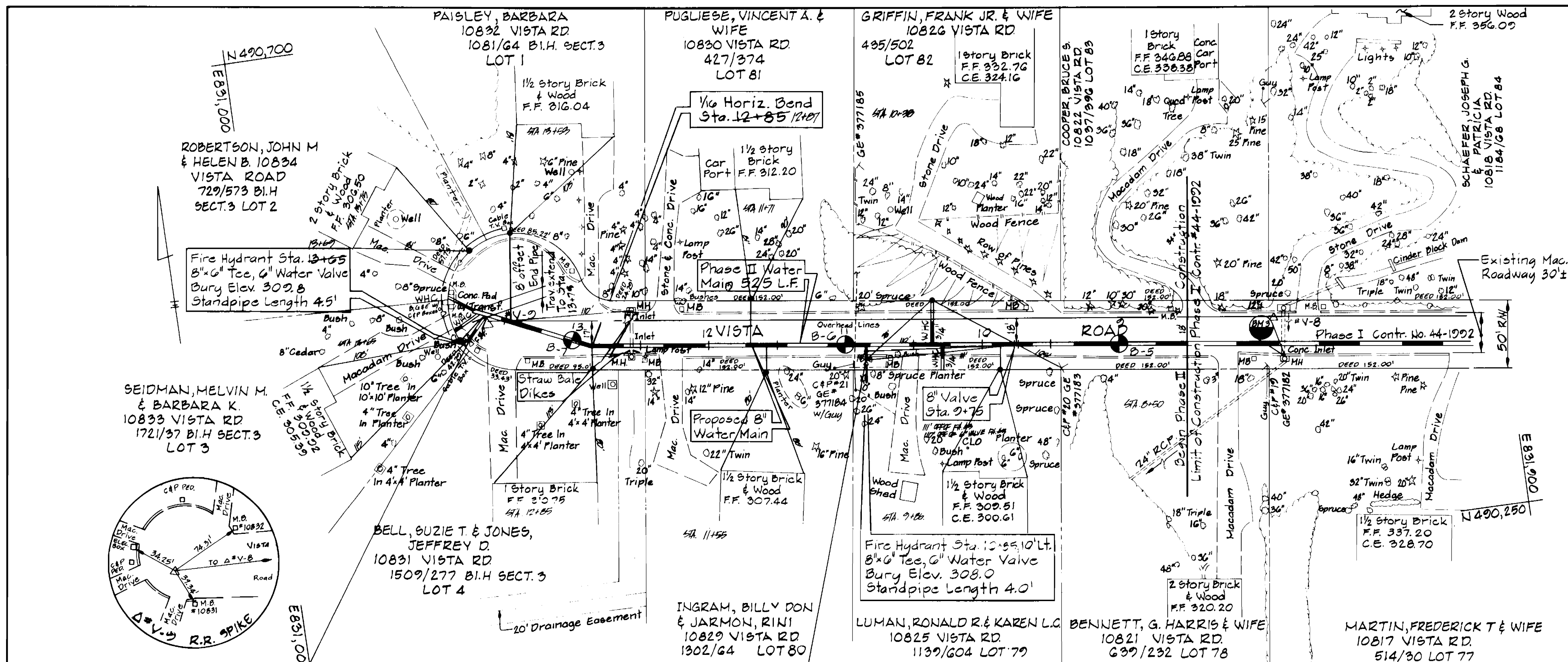
PLAN AND PROFILE OF
 WATER EXTENSION

VISTA ROAD ROUTINE WATER EXTENSION PHASE I
 CAPITAL PROJECT W 8689
 CONTRACT NO 44-1992
 ELECTION DISTRICT NO. 5
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 1 OF 3

WATER "AS BUILT" 12/15/90



TYPE OF BUILDING: RESIDENTIAL NUMBER OF PARCELS: 4 WATER HOUSE CONNECTIONS: 4 DRAINAGE AREA: MIDDLE PATUXENT	VICINITY MAP SCALE: 1" = 600'	WATER CODE FOR COUNTY USE ONLY: WATER NO. E22
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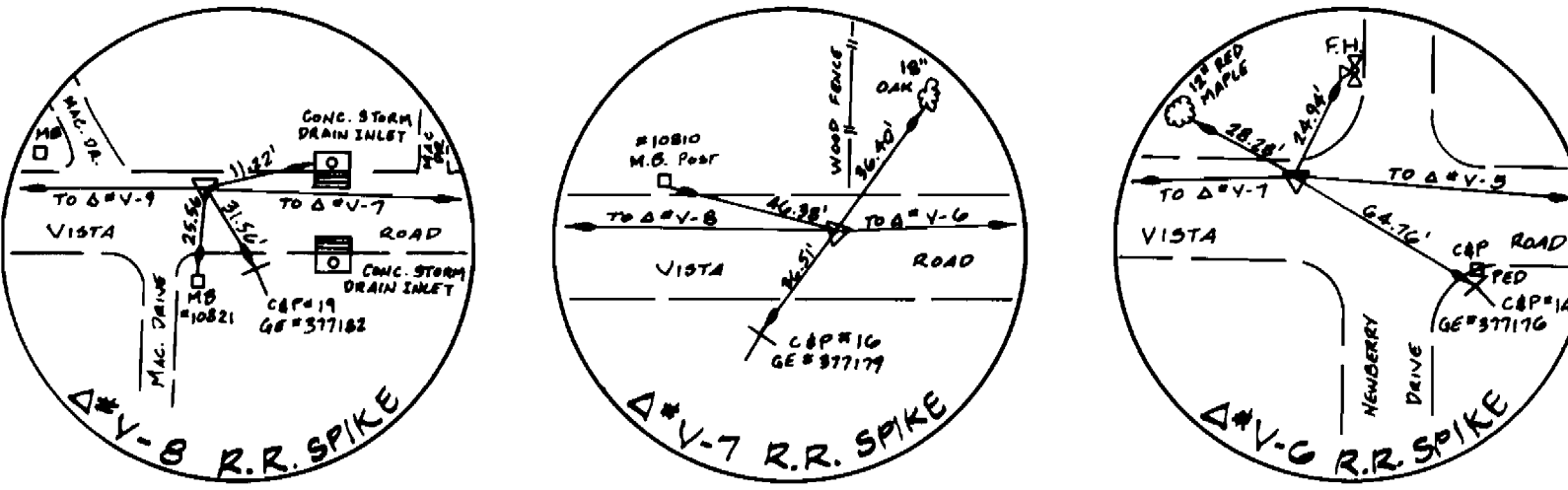
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- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL [Symbol] AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
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- ALL WATER MAINS TO HAVE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MIN. OF 3.5' COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
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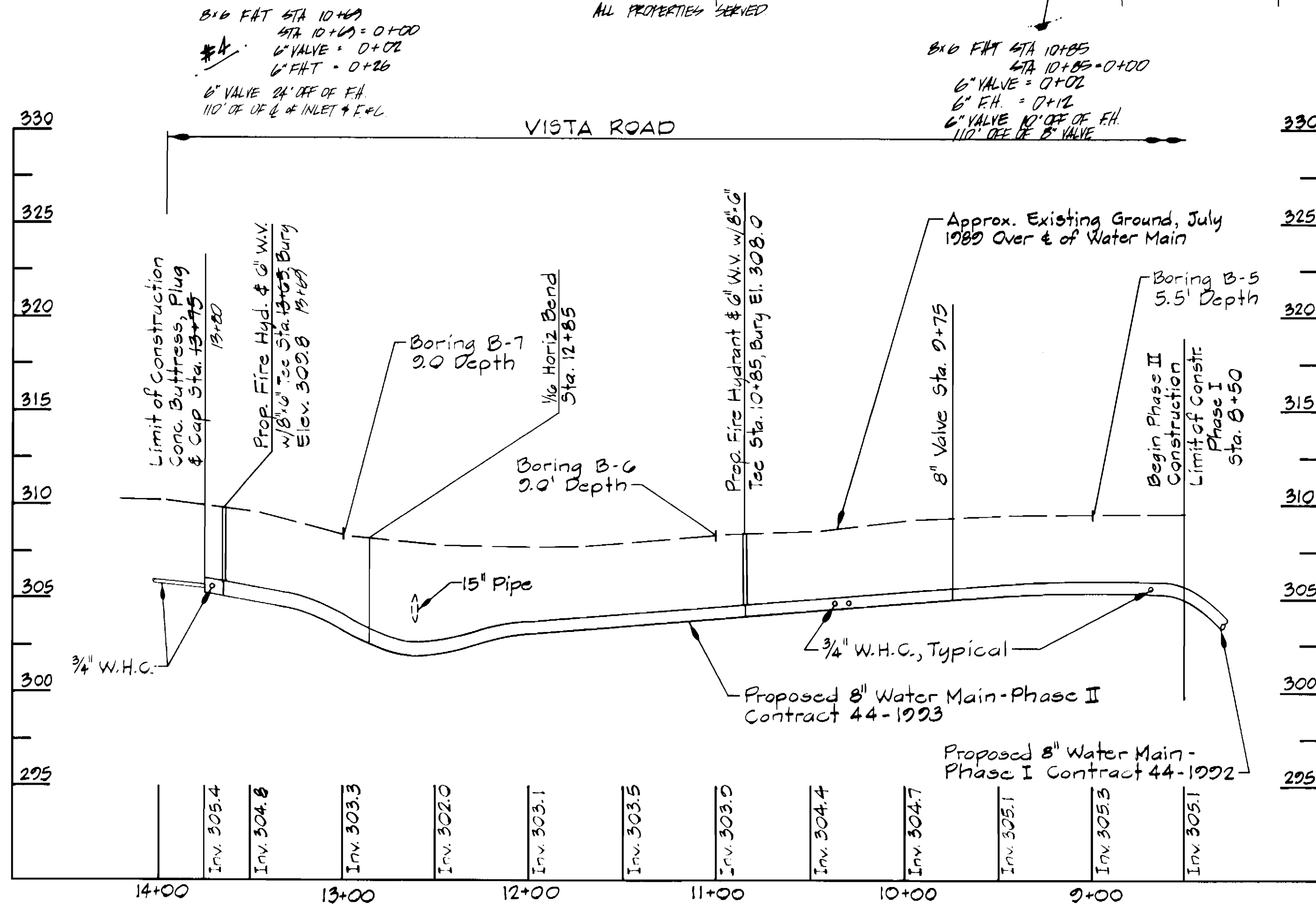
Note:
All unserved properties are not in the Metropolitan District.
ALL PROPERTIES SERVED

Note:
All Water House Conn. to be installed by pneumatic compactor bore or "missile".

BENCH MARK
B.M. #3 "Cut into storm Inlet on Vollmarhausen Road Elev. 310.48"



ITEM	QUANTITIES		TYPE MATERIAL	SUPPLIER
	ESTIM.	AS BUILT		
8" Water Main	525 L.F.	590 L.F.		ATLANTIC STATES PIPE
8" Water Valves	1 EA.	1 #		MUELLER COMPANY
Std. Fire Hydrant	2 EA.	2 #		MUELLER COMPANY
3/4" Water House Conn.	90 L.F.	295 L.F.		HALSTENK INDUSTRIES



PROFILE
Scale: 1" = 50' Horiz. & 1" = 5' Vert.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
James P. ... 2-13-90
Robert ... 2-9-90

WALLACE, MONTGOMERY & ASSOCIATES
1544 YORK ROAD
LUTHERVILLE, MARYLAND 21093
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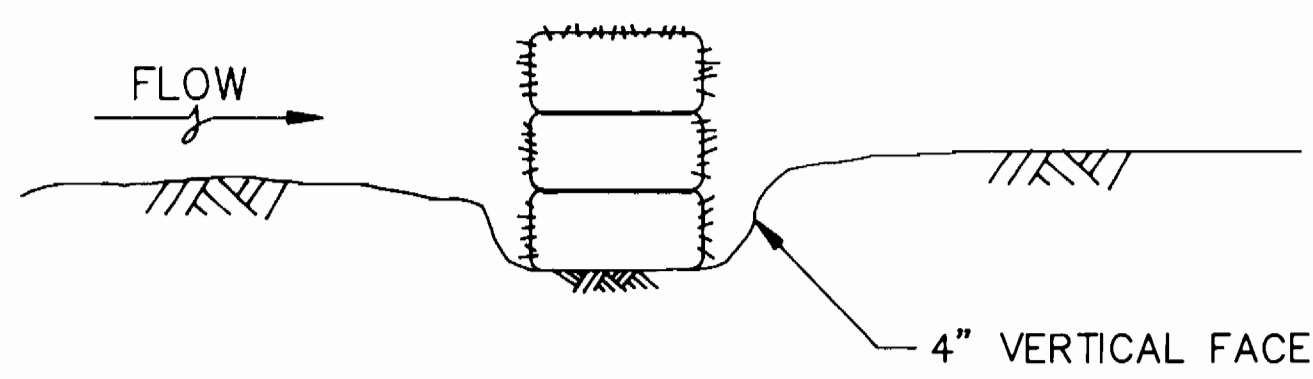
DES: J.C.W.
DRN: S.W.S.
CHK: J.C.W.
DATE: 12-8-89

PLAN AND PROFILE OF
WATER EXTENSION

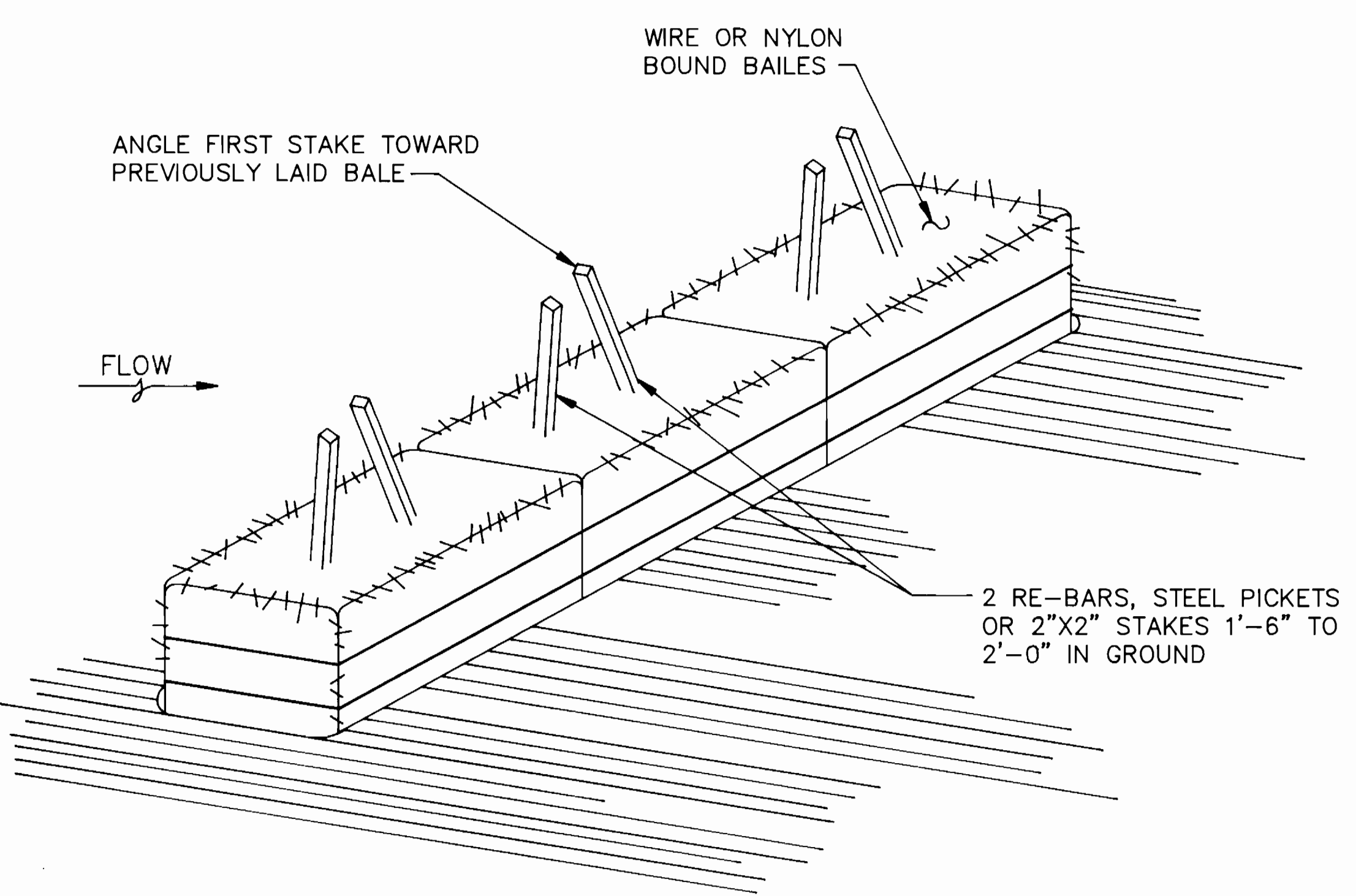
VISTA ROAD ROUTINE WATER EXTENSION PHASE II
CAPITAL PROJECT W 8689
CONTRACT NO. 44-1993
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 3

DATE: 12/16/90



EMBEDDING DETAIL



ANCHORING DETAIL

CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THRU THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STANDARD SYMBOL ————— S.B.D. —————

STRAW BALE DIKE DETAIL
NOT TO SCALE

TRAVERSE DESCRIPTION				
POINT NO.	NORTH	EAST	BEARING	DISTANCE
2239002	486174.7180	832619.6050		
			N18°-18'-46"E	1495.95'
2239001	487594.9080	833089.6380		
			N41°-20'-59"E	1720.77'
V-1	488886.6757	834226.4694		
			N34°-33'-47"E	1715.33'
V-2	490299.2548	835199.5970		
			N62°-52'-57"E	50.50'
2340005	490322.0890	835244.7580		
			S62°-52'-57"W	50.50'
V-2	490299.2548	835199.5970		
			S77°-25'-25"W	653.56'
V-3	490156.9474	834561.7183		
			N71°-51'-25"W	564.13'
V-4	490332.6117	834025.6355		
			S77°-12'-38"W	711.30'
V-5	490175.1515	833331.9829		
			N80°-49'-59"W	849.21'
V-6	490310.4398	832493.6186		
			N82°-47'-36"W	327.38'
V-7	490351.5089	832168.8249		
			N82°-54'13"W	446.11'
V-8	490406.6205	831726.1321		
			N82°-24'-00"W	571.37'
V-9	490482.1874	831159.7813		

RESTORATION		SCHEDULE
LOCATION	LENGTH	MATERIAL
STA. 0+00-0+25	25'	Sod and Pavement
STA. 0+25-13+75	1350'	Pavement

SOIL EROSION AND SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR WILL COMPLY WITH ALL REQUIREMENTS OF SEDIMENT AND EROSION CONTROL SET FORTH IN THE CONTRACT DRAWINGS, 1983 "MARYLAND STANDARDS SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND VOLUME IV-SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV.
2. THE CONTRACTOR SHALL NOT PUMP FROM EXCAVATED AREAS DIRECTLY INTO THE HOWARD COUNTY STORM DRAINAGE SYSTEM OR ANY NATURAL WATER COURSE. WHERE GROUND WATER IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE PORTABLE OR EXCAVATED SEDIMENT TRAPS TO PREVENT SILTED TRENCH WATER FROM ENTERING STORM DRAINAGE SYSTEMS OR NATURAL WATERWAYS.
3. ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH WHENEVER POSSIBLE, AND CONFINED TO AN AREA WHERE IT WILL NOT OBSTRUCT THE NORMAL FLOW OR DRAINAGE COURSES.
4. ALL SWALES SHALL BE EQUIPPED WITH A SEDIMENT RETENTION DEVICE TO TRAP SEDIMENT AND FILTER WATER LEAVING THE RIGHT-OF-WAY PRIOR TO ENTERING ANY RUNNING STREAM.
5. THE CONTRACTOR SHALL PROVIDE STRAW BALE DIKES NORMAL TO SURFACE WATER FLOW AROUND ALL VEHICLE AND EQUIPMENT STAGING AREAS AS SHOWN IN "DETAIL OF A STRAW BALE DIKE" ENCLOSED IN SPECIFICATIONS.
6. ROAD SIDE DITCHES AND DRAINAGE PIPES SHALL BE RESTORED TO A CONDITION FOLLOWING COMPLETION OF CONSTRUCTION.
7. THE CONTRACTOR SHALL DISPOSE OF SPOILS IN ACCORDANCE WITH GOOD SOIL CONSERVATION PRACTICE AND IN SUCH A MANNER THAT NONE CAN BE CARRIED INTO ANY DRAINAGE FACILITY OR WATER COURSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF ALL SPOIL OR EXCESS EXCAVATED MATERIAL ON A SITE APPROVED BY THE SOIL CONSERVATION DISTRICT. DOCUMENTATION OF APPROVAL AND SITE SHALL BE PROVIDED TO THE ENGINEER PRIOR TO BEGINNING WORK.
8. THE HOWARD COUNTY SOIL CONSERVATION DISTRICT MUST BE NOTIFIED IN WRITING BY THE CONTRACTOR AS TO WHERE EXCESS MATERIAL WILL BE DISPOSED FROM THE PROJECT, COPIES SHALL BE PROVIDED TO THE ENGINEER.
9. CONTINUOUS INSPECTION AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROL DEVICES WILL BE REQUIRED.
10. THE CONTRACTOR SHALL PROVIDE ADDITIONAL SOIL EROSION AND SEDIMENT CONTROL AS REQUIRED BY THE SEDIMENT CONTROL INSPECTOR, AS THE WORK PROGRESSES OR REQUIRES.
11. THE CONTRACTOR SHALL NOTIFY IN WRITING, A HOWARD COUNTY SEDIMENT CONTROL DIVISION REPRESENTATIVE AT LEAST THREE (3) DAYS PRIOR TO STARTING WORK. PLEASE CONTACT: HOWARD COUNTY 992-2436. COPIES SHALL BE PROVIDED TO THE ENGINEER.
12. THE CONTRACTOR SHALL PLACE A STABILIZED CONSTRUCTION ENTRANCE AS SHOWN IN THE HOWARD COUNTY STANDARD DETAILS, G6.11 WHERE SHOWN ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
13. SEDIMENT REMOVAL - ALL TRAPPED SEDIMENT IS TO BE REMOVED AND DISPOSED OF AT THE AUTHORIZED LANDFILLS PRIOR TO REMOVAL OF SEDIMENT CONTROL STRUCTURES.
14. FOLLOWING INITIAL SOIL DISTURBANCE, OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - A. SEVEN (7) CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
 - B. FOURTEEN (14) DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

<p>ENGINEER'S CERTIFICATION</p> <p>I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.</p> <p><i>John C. Wallace</i> DATE 1/24/90 WALLACE, MONTGOMERY & ASSOCIATES 1544 YORK ROAD LUTHERVILLE, MARYLAND 21093 (301) 494-9093</p>	<p>REVIEWED FOR HOWARD COUNTY S.C.D. MEETS TECHNICAL REQUIREMENTS.</p> <p><i>John R. Robertson</i> 2/17/90 SOIL CONSERVATION SERVICE DATE</p> <p>THIS DEVELOPMENT PLAN IS APPROVED FOR THE SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.</p> <p><i>John R. Robertson</i> 2/17/90 APPROVED DATE HOWARD COUNTY S.C.D.</p>
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<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>James J. ...</i> 2-13-90 DIRECTOR OF PUBLIC WORKS DATE</p> <p><i>Robert ...</i> 2-9-90 CHIEF, BUREAU OF UTILITIES DATE</p>	<p>WALLACE, MONTGOMERY & ASSOCIATES 1544 YORK ROAD LUTHERVILLE, MARYLAND 21093 (301) 494-9093</p> <p><i>John C. Wallace</i> DATE 12-8-89</p>	<p>DES: J.C.W. DRN: S.W.S. CHK: J.C.W. DATE: 12-8-89</p> <p>BY NO. REVISION DATE</p>	<p>DETAILS OF WATER EXTENSION</p> <p>600' SCALE MAP NO. _____ BLOCK NO. _____</p>	<p>VISTA ROAD ROUTINE WATER EXTENSION CAPITAL PROJECT W 8689 CONTRACT NO. 44-1992 & 44-1993 ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND</p> <p>SCALE AS SHOWN SHEET 3 OF 3</p>
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